

The Black Swan and Education

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Learning How to Learn is Necessary

Famous authors [Cal Newport](#) and [Scott Young](#) both give similar arguments for the need to learn how to learn efficiently.

Young: "Rapidly changing fields also mean that professionals need to constantly learn new skills and abilities to stay relevant." (Young, 2019, p. 30)

Newport: "We have an information economy that's dependent on complex systems that change rapidly. ... To remain valuable in our economy, therefore, you must master the art of quickly learning complicated things." (Newport, 2016, p. 13)

World Guinness record holder in memory [Nishant Kasibhatla](#) even stated the following: "Your learning capability decides your earning capacity." (Ideas & Inspiration, 2019)

In short, learning how to learn is not only necessary to thrive, but even to *survive*.

I myself believe that learning is one of the, if not the, most important skills to master as it has an exponential positive effect on every other aspect of your life. It is why formal education should do their best to teach students how to learn based on modern (cognitive) science.

Leverage

The reason these arguments work, or the premise these points are made on, is a concept known as *leverage* or *supply and demand*... If you are able to gain the right **unique** skillsets, which are also in high demand, you become irreplaceable; you have a high *perceived* value as you are able to do things that nobody else is able to do through your unique experiences, knowledge and expertise. And therefore you also earn a lot... Money and income is decided by perceived value. Those who are hard to replace earn more than those who are easy to replace, usually. You might think it is not fair, but it is the way the world works.

This is the same reason why specialists earn a lot of money, it is because they have high perceived value and are able to do something that others cannot do, as they have mastered something that took insane effort and time. However, being a specialist is not the only way, expanding the *breadth* of one's knowledge can leverage this concept as well by means of a unique process of thinking; networked thought... If you can see connections between

information that nobody else is able to see, you innovate and are valuable to companies. Uniqueness and novelty are key.

Mediocristan vs. Extremistan

In *The Black Swan*, author Nassim Nicholas Taleb distinguishes between two kinds of environments: the *mediocristan* and the *extremistan*. In a mediocristan environment, a single instance does not impact the average by a lot (think about weight or length), however, in the extremistan, a single instance can take up more than 90% of the average (think about net worth, income, etc.).

This distinction is quite valuable to understand why learning to learn causes one's income to potentially increase by a lot. Jobs that have the highest capacity for earning are often found in an unpredictable extremistan environment whereas jobs that earn a stable, average income are often found in a mediocristan environment. Usually, these jobs that earn you a lot require brain power; they rely on ideation and innovation, deep thinking...

Innovations and the Black Swan Event

Taleb's book is about what he dubs the *Black Swan* event; it is a rare, hard to predict, event with immense impact. Innovations, he argues, are by definition a black swan because if an innovation could be predicted, conceptualized in advance, the innovation would already have been made. The realm of innovation is tied directly to the extremistan environment, because events like these, an innovation being made, can be predicted if they were in a mediocristan environment.

Notable Black Swan innovations are the internet, the computer, and the laser. (Taleb, 2010, pgs. 31ff; 374ff)

Black Swans and Societal Advance

Therefore, Black Swans have the capacity to to bring society forward or backward by significant magnitude. They are, by definition, what Peter Thiel would call "vertical progress" or zero to one as opposed to one to x (Thiel, 2014). I argue that advancement of society as a whole depends partly, if not mostly, on people who can cause these Black Swans, these innovations and novel thoughts.

People like this know how to think critically, have high domain expertise, and partake in what Ana Lorena Fábrega would call *Elastic Thinking*. Elastic thinking is the process of looking at a situation from different angles and lenses, making unique, perhaps serendipitous, connections in the process (Fábrega, 2023, pgs. 230ff).

Black Swans and Learning

How does this relate to learning how to learn? Well, innovation is dependent on expertise, for the act of coming up with novelty stems from using what you know in interesting, unique ways.

In addition, to become robust against negative Black Swans, as Taleb would say, or to benefit from positive Black Swans, one needs to have a high degree of domain mastery (you must be an expert). As Grant Cardone says: "Luck is where opportunity meets skill and preparation." Without adequate skill, you can't recognize a good opportunity, or, if you do, know how to benefit from it.

Knowledge and Creativity

According to Michael Shumate, an emeritus and logo designer, creativity is the ability to solve problems while taking into account constraints and limitations (Shumate, 2021, p. 8).

Cognitive Load Theory and neuroscience tell us that knowledge schemas are formed based on relationships between pieces of information. Problem-solving depends on thinking about that information in different, unique ways and coming up with, sometimes serendipitous, connections. (Brown, 2014; Quian Quiroga, 2017; Roediger et al., 2007; Sweller et al., 2011). Boyd's OODA (Observe, Orient, Decide, Act) loop explains this quite well in the orientation phase (Angerman, 2004; Richards, 2004, 2020).

For a creative writer or thinker to succeed, he still needs material to think about. Therefore, learning how to learn efficiently provides one with the tools to get to sufficient mastery faster.

Even the most creative fiction writers use inspirations from history and other real-life knowledge in order to come up with the most compelling stories. George R.R. Martin created Game of Thrones using extensive knowledge of politics and medieval UK. J.R.R. Tolkien conceptualized the Lord of the Rings based on his experience in World War 1.

Summary

In conclusion, it is important to learn how to learn because:

- It helps you earn more
- It makes you more creative
- It allows you to leverage positive black swans
- It allows you to become less affected by negative black swans

Closing Note

I highly urge formal education, the school system, to do research into cognition and learning, to keep on track with modern scientific advancement in these areas, and to provide students with the opportunity to be taught how to learn efficiently. Do not expect them to know how to learn

without it ever being taught to them. Provide them with the means necessary to achieve success in life; to adapt to ever-changing complex environments and systems... To the information economy.

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Physical Notes Used

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